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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,068	02/20/2004	Maksim Kuzmenka	2003 P 50080 US	6289
48154	7590	09/14/2005	EXAMINER	
SLATER & MATSIL LLP 17950 PRESTON ROAD SUITE 1000 DALLAS, TX 75252			TON, MY TRANG	
			ART UNIT	PAPER NUMBER
			2816	

DATE MAILED: 09/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/783,068	<b>Applicant(s)</b> KUZMENKA ET AL.	
	<b>Examiner</b> My-Trang N. Ton	<b>Art Unit</b> 2816	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

  
MY-TRANG NUTON  
PRIMARY EXAMINER

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/20/04</u> . | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, "a comparator (claims 2, 4, 7), "an edge detector" (claim 3) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

Claims 1-15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The description of the preferred embodiment in the specification is incomplete as presently recited. For example, in the description of Figs. 1 and 4, the specification fails to properly define the "the differential amplifier 70". Insofar as understood, element 70 is not functioning as the differential amplifier (due to element 70 have to many input, especially Fig. 4). Is element 70 a "multiplexer"? That is, it is difficult to fully understand the operation and novel features of the present invention without an explanation of the circuit thereto.

Claims 1-15 are also rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

All claims refereed to "differential amplifier". However, as noted above, element 70 of figs. 1 and 4 (especially Fig. 4) does not seen to perform the amplifier function. Thus, the metes and bounds of these claims are difficult to determine as presently recited.

Moreover, in claim 2, the limitation "further comprising: a comparator..." is misdescriptive of the present invention since such limitation is not seen as recited therein. In order to avoid any confusion, Applicant is required to particularly point out how this limitation reads on the circuit arrangement of the drawings.

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In claim 3, it is not fully clear which element is referred as "an edge detector". In order to avoid any confusion, Applicant is required to particularly point out how this limitation reads on the circuit arrangement of the drawings.

Claim 4 is similarly rejected as claim 2 regarding the limitation "further comprising: a comparator...".

Claims 6-7 are similarly rejected as claim 4.

In claim 12, there is no support for the limitation "detecting an edge of the partially delayed signal".

In claim 15, there is no support for the limitation "decoding the bit by means of the difference signal".

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Morishima (U.S Patent No. 6,046,611) cited in PTOL 1449.

Morishima discloses in Figs. 1-2 a semiconductor circuit device with receiver circuit including:

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a delay member (7) with an input for receiving the input signal (1) and an output (10), for delaying the input signal to obtain a delayed signal and for outputting the delayed signal at an output (10); and

a differential amplifier (20) with a first input (connected to V1) for receiving the input signal (1), a second input (connected to V10) for receiving the delayed signal (10) and an output (6) for outputting the difference signal formed from the input signal (1) and the delayed signal (10) as recited in claim 1.

Regarding claim 2:

a comparator for determining whether the difference signal is greater than a first predetermined threshold, for determining whether the difference signal is smaller than a second predetermined threshold, and for outputting a binary signal depending on whether the difference signal is greater than the first predetermined threshold or smaller than the second predetermined threshold (due to indefiniteness, the limitation "further comprising: a comparator" does not given sufficient weight to read over the prior art. Element 20 reads on a comparator". Also, because the structure of the claims is fully met so the functional limitation is also met.

Regarding claim 3: the delay member (7) includes a first partial delay member (8A) and second delay member (8B). Due to indefiniteness, the limitation "an edge detector" does not given sufficient weight to read over the prior art.

Claim 4 is similarly rejected as claim 2.

Regarding claim 5: the delay member (7) comprises a plurality of partial delay members (8A, 8B). Due to indefiniteness, the limitation "a plurality of first inputs and a

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plurality of second inputs" does not given sufficient weight to read over the prior art. As seen in fig. 1, the differential amplifier comprises a plurality of input signals (connected to V10, V9, V1).

Claims 6-7 are similarly rejected as claims 2 and 5.

Regarding claim 8:

a driver (3) for driving the input signal comprising a pulse with a positive part and a negative part of same duration which encodes the bits (4);

a transmission line (1) for transmitting the input signal with an input , which is connected to the driver (3), and an output;

a device (RECEIVER CIRCUIT) for converting the input signal (1) into a difference signal, the device (RECEIVER CIRCUIT) comprising a delay member (7) with an input for receiving the input signal (1) and an output (10), for delaying the input signal to obtain a delayed signal and for outputting the delay signal at an output (10), and a differential amplifier (20) with a first input (connected to V1) for receiving the input signal (1), a second input (connected to V10) for receiving the delayed signal (10) and an output for outputting the difference signal formed from the input (1) and the delayed signal (10); and

a termination load, which is connected to the output of the delay member (is inherently seen to read in col. 10, lines 22-24).

Regarding claim 9: the termination load is connected to the output of the delay member via a further transmission line (is inherently seen to read in col. 10, lines 22-24).

The method recited in claims 10-11 are similarly rejected as claims 1-2.

Regarding claim 12: the limitation "generating a partially delayed signal ... as against the input signal" method step is seen in 8A, 8B; and detecting an edge of the partially delayed signal (11, 14, 17) (Fig. 2).

Elements 7 and 20 are capable performing the method steps recited in claim 13. Moreover, because the structure of the claims is fully met so the functional limitation is also met.

The method recited in claim 14 is similarly rejected as claim 5.

The method recited in claim 15 is similarly rejected as claim 8.

The additional references cited in PTOL 892 to show further analogous prior art circuitry. This art is deemed relevant and should be carefully reviewed before any amendment is filed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to My-Trang N. Ton whose telephone number is 571-272-1754. The examiner can normally be reached on 7:00 a.m - 5:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on 571-272-1740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



My-Trang N. Ton  
Primary Examiner  
Art Unit 2816

September 12, 2005